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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,983	06/08/2001	Ram Rajagopal	5150-53200	9955

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EXAMINER	
AZARIAN, SEYED H	
ART UNIT	PAPER NUMBER
2625	3

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/876,983	Applicant(s) RAJAGOPAL ET AL.	
	Examiner Seyed Azarian	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,9-14,20-25 and 31-33* is/are rejected.

7)☒ Claim(s) *4-8,15-19 and 26-30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-3, 9-14, 20-25 and 31-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Nair et al (U.S. patent 6,370,270).

Regarding claim 1, Nair discloses a method for scanning for an object within a region, comprising;

scanning the region using a Low Discrepancy Sequence scanning scheme (Fig. 12, column 4, lines 43-46, placing CCD sensor using a Low Discrepancy sequence);

determining one or more characteristics of the object in response to said scanning (column 2, lines 42-62, determining object location and motion estimation and method of image characterization, pattern matching);

and generating output indicating the one or more characteristics of the object (Fig. 1, column 5, lines 5-17, perform image characterization, generation of image statistics, image location, and motion estimation or object location, pattern matching).

Regarding claim 2, Nair discloses the method of claim 1, further comprising, generating a motion control trajectory, wherein said scanning the region comprises scanning the region along the motion control trajectory (see claim 1, also column 13, lines 38-66, generating motion vector and motion estimation and changing viewpoints (path)).

Regarding claim 3, Nair discloses the method of claim 2, wherein said generating the motion control trajectory comprises, calculating a Low Discrepancy Sequence of points in the region (column 5, lines 54-60, calculating Low Discrepancy);

generating the motion control trajectory from the Low Discrepancy Sequence of points (column 13, lines 38-66, generating motion vector and motion estimation and changing viewpoints);

and wherein said scanning the region using a Low Discrepancy Sequence scanning scheme comprises, measuring the region at a plurality of points along the motion control trajectory (column 14, lines 1-16, obtaining the structure of objects from motion and tracking object).

Regarding claim 9, Nair discloses the method of claim 3, wherein said calculating the Low Discrepancy Sequence of points in the region comprises determining a plurality of points, wherein any location in the region is within a specified distance of at least one of the Low Discrepancy Sequence of points (column 2, line 53 through column 3, line3, the distance between any two sample points is maximized).

Regarding claim 10, Nair discloses the method of claim 1, wherein the region has a dimensionality of one of one or two (as shown in Fig. 10, column 15, lines 13-23, generate a plurality of locations in 2D space using a Low Discrepancy sequence).

Regarding claim 11, Nair discloses the method of claim 1, wherein the region has a dimensionality greater than two (column 14, line 66 through column 15, line 12, 3-dimensional volume using a Low Discrepancy).

Regarding claim 12, Nair discloses a system for scanning for an object within a region, comprising, a sensor, and a computer which is operable to couple to said sensor, said computer comprising: a CPU, and a memory medium which is operable to store a scanning program; wherein said CPU is operable to execute said scanning program to perform (column 9, lines 4-9, CPU and memory medium);

scanning the region using a Low Discrepancy Sequence scanning scheme, determining one or more characteristics of the object in response to said scanning; and generating output indicating the one or more characteristics of the object (Fig. 1, column 5, lines 5-18, perform image characterization).

Regarding claims 13-14 and 24-25, it recites similar limitation as claims 2, 3 and 12 are similarly analyzed.

Regarding claims 20-23 and 31-33, it recites similar limitation as claims 9, 10, 11 and 12 are similarly analyzed.

Allowable Subject Matter

2. Claims 4-8, 15-19 and 26-30, are objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitation of the base claim and any intervening claims.

Other prior art cited

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. patent (5,790,442) to Ninomiya et al is cited for method and apparatus for generating low-discrepancy sequence, as wellas apparatus and method for calculating multiple integral of function F.

U.S. patent (5,872,725) to Ninomiya et al is cited for Quasi-random number generation apparatus and method and multiple integration apparatus and method of function F.

U.S. patent (6,031,932) to Bronstein et al is cited for automatic inspection of printing plates or cylinders.

U.S. patent (5,940,810) to Traub et al is cited for estimation method and system for complex securities using low-discrepancy deterministic sequences.

U.S. patent (6,185,543) to Galperin et al is cited for method and apparatus for determining loan prepayment scores.

U.S. patent (6,529,193) to Herken et al is cited for system and method for generating pixel values for pixels in an image using strictly deterministic methodologies for generating sample points.

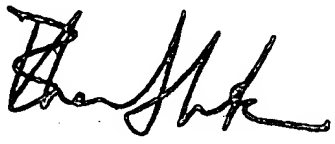
U.S. patent (4,740,079) to Koizumi et al is cited for method and apparatus for detecting foreign substances.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seyed Azarian whose telephone number is (703) 306-5907. The examiner can normally be reached on Monday through Thursday from 6:00 a.m. to 7:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached at (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR.
Status information about the PAIR system, see http:// pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Seyed Azarian
Patent Examiner
Group Art Unit 2625
June 16, 2004